



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,228	12/20/2001	Atsushi Yamaguchi	111476	4214

25944 7590 04/04/2003

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

NGUYEN, HUNG

ART UNIT PAPER NUMBER

2851

DATE MAILED: 04/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,228

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Hung Henry V Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 3/20/03.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 and 16-27 is/are allowed.
- 6) ☒ Claim(s) 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 20 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Saeki (JP-408124843A).

With regard to claims 14-15, Saeki (fig.1) discloses a scanning exposure apparatus for exposing a pattern formed on a reticle onto a substrate and comprising all basic features of the instant claims such as: a reticle stage (2A) for holding a reticle, an acceleration measuring means (21) for detecting the acceleration of the reticle stage, a control device (23) for controlling the movement of the stage in accordance with the detected output of the acceleration measuring means so that the acceleration of the stage is within a predetermined range and thus offset will not occur in the reticle.

3. Claims 14-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wakui (U.S.Pat. 5,900,707).

With respect to claims 14-15, Wakui teaches an exposure apparatus comprising all of the limitations of the instant claims including a mask stage (4) for holding the mask (3) in a direction on a predetermined plane substantially parallel to a pattern surface of the mask (see fig.1); a sensor (30) for detecting the acceleration of the reticle stage and an adjustment device/controller

for controlling the acceleration of the stage based on the detected information/an offset caused by the movement of the stage (see col.6, line 49 thru col.7, line 13).

Response to Amendment/Argument

4. Applicant's amendment filed March 20, 2003 have been entered. Amended claims 1-13 and 16-27 are allowed. The following is a statement of reasons for the indication of allowable subject matter: With respect to amended claims 1-13, and 16-27, the arguments presented by the applicant in the Amendment filed March 20, 2003 are deemed persuasive and incorporated herein by reference. For example, see page 11, lines 3-25 of the Amendment.

Turning now to the prior art rejection of claims 14-15, Applicant's arguments have been carefully reviewed but have been traversed in view of the rejections set forth above. In response to applicant the applied references fails to teach obtaining information regarding to an offset in a predetermined plane of a mask on a stage caused by the movement of the stage based on the detected information regarding acceleration of the stage. The Examiner disagrees with the applicant. Saeki teaches using an acceleration measuring means 21 for obtaining information regarding to an offset such as misalignment between the mask and the substrate caused by the movement of the mask stage/and or substrate stage based on the detected information regarding the acceleration of the mask stage (see abstract of Saeki). Wakui teaches a sensor (30) for detecting the acceleration of the reticle stage (4) and an adjustment device/controller for controlling the acceleration of the stage based on the detected information/an offset (misalignment between the predetermined plane of the mask and the substrate) caused by the movement of the stage (see col.6, line 49 thru col.7, line 13).

Art Unit: 2851

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

Hvn 4/1/03


HENRY HUNG NGUYEN
PRIMARY EXAMINER